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With Sir George Reid's Compliments.

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THE WORLD OF MATTER
AND
THE WORLD OF MIND

An Address delivered by

THE RIGHT HON. SIR GEORGE REID
G.C.M.G., K.C., D.C.L.

TO THE

ROYAL SCOTTISH GEOGRAPHICAL SOCIETY

EDINBURGH, 22ND FEBRUARY, AND
GLASGOW, 23RD FEBRUARY 1912

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THE WORLD OF MATTER

AND

THE WORLD OF MIND

PRELIMINARY.

Mr. President, Ladies and Gentlemen,—

Mind and Matter make up the whole universe animate and inanimate, from the divine mind down to the lowest form of mental being; from the assembled wonders of the firmament down to the tiniest speck of mud. My subject seems therefore to include everything there is or ever was. My address will not be so all-comprehending. The only geography I will touch, either of matter or of mind, will be the result of the reflection of a man who is neither geographer, geologist, psychologist, nor moralist. I have one simple purpose in view—I wish with all the power I possess to call attention to the strange indifference which prevails in reference to the nature of the human mind, and its rank in the scale of being. I regard the indifference to which I refer as a reproach to modern science, and a blot on the common sense of mankind.

EXPLORATION AND GEOGRAPHY.

Explorers and geographers have done their work more thoroughly perhaps than human benefactors of any other class. The people of modern times are indebted to them in no small degree for the advantages they are enjoying. In recent years the treasures of the farthest countries have been revealed, and the terrors of the ocean wastes have been dispelled. At first the movements of our race were governed by their acquisitive and conquering appetites. These led the various families of man from point to point in search of food and comfort first, and wealth afterwards. But even under these spurs it took many centuries to add even a little to the world's knowledge of itself. It is the last century which has witnessed the lion's share of mankind's expansion.

Thanks to the modern geographer the world has been so well mapped out that most of the work remaining can be left to private enterprise, pastoral, farming, mining, and commercial. In producing that result the Royal Scottish Geographical Society has played a conspicuous part. It is a worthy companion of its celebrated English namesake, and I feel greatly pleased and honoured to occupy a place upon its list of lecturers.

I. THE WORLD OF MATTER.

The vast universe of matter cannot put forth a hand, give expression to a thought, or feel an emotion. Matter moves because it cannot help itself. It is a thing of illimitable complexity, and no one can tell us what its nature is. For instance, a gas is not a continuous substance but an assemblage of an enormous number of perfectly distinct and independent particles, each of which moves freely until it collides with another, and thus has its motion completely changed, it is said, some 8000 million times a second. The number of such separate particles in a single cubic inch of air is expressed in hundreds of trillions, yet their total bulk only occupies $\frac{1}{500}$ part of that space.

The origin of all the worlds in the universe is still the subject of a guess.

Science also tells us that all domestic animals and all plants of agriculture, with perhaps three exceptions, had their origin on the continent in which Adam and Eve were placed.

If science has traced living organisms through ages of transformation without meeting with one sign of a special creation, it is also to be remembered that science has never met with one sign of a living thing that had created its own life, or been put together by "an accidental aggregation of fit atoms."

Science has found proofs that the physical powers of the possible ancestors of man were perfect thousands of years ago. We need no aid from science to discover that his mental powers are far from perfect still. The first physical man is a much easier problem than the first intellectual man.

The life-preserving light given by the sun is insignificant when compared with that given by other stars, yet the light bestowed by the sun on this planet is only in quantity as one is to 2000 millions in number!

The reign of law is supreme in the material universe, but not in the universe of mind.

LIFE UPON OTHER WORLDS.

May not the vast expanses of the heavens be the dwelling-place of liberated souls, not only of our own race, but of countless other races that lived before the world began, upon a host of other worlds which are still the scene of life?

If living things exist only on this globe, living things are the loneliest of all the objects which the telescope can reach, or the microscope reveal, or the mind of man conceive. Man would be the loneliest of all, for he stands alone even among the living things of his own planet. To have no mate in the worlds of space, or in the passing of eternity—the soul shudders at that as the most dismal of all fates! The universe of matter is inhabited surely, as well as governed, by a universe of mind.

Mysteries beyond the Reach of Science.

Perhaps the most striking result of the brilliant achievements of science in the realms of the inanimate is this: the more scientists discover and explain, the more complex the problems become. As the postulates of each generation of scientific inquirers are discarded by its successor, the new truths make the outlook not less but more mysterious. It took many generations of scientific achievement to become familiar with the chemical atom, but a new generation has just arisen which tells us what the great Huxley could never tell us, that the atom which science regarded as the unit of matter is capable of almost infinite subdivision into particles which make the atom as large when contrasted with the real unit as "the dome of St. Paul's Cathedral is when compared with a pin's head." Each of the chemical atoms of thirty years ago is now said to contain millions of independent units full of electrical energy, an energy so marvellously intense that it causes them, as I have just said, to collide one with the other millions of times a second!

The First Man.

The particles, and there must have been myriads of them, that collided and then cohered together in the making of the first union between that which was alive and that which was not, must have been a remarkable assemblage. If by the will of a Creator, how wonderful! If by chance, how infinitely more wonderful! Yet the one physical or the other physical explanation of this sublime achievement leaves the breath of life, the most important fact of all, still wrapped in mystery. If Darwin is wrong and living things are merely reproductions of those which first appeared upon the face of the globe, how wonderful they would seem! If Darwin is right and the first editions were equipped for an infinite series of stages of development, do they not become vastly more wonderful? If we could conceive that the only true God is the God of Chance, how much more wonderful the works of such a God would be than those of a God possessing a soul full of divine intelligence, and capable of making plans of infinite wisdom! The materialist and the atheist, if such there really be, seem to me to make a larger claim upon human belief than the worshippers of the falsest of false gods can do.

Science now tells us that the physical basis of a special creation a few thousand years ago, upon which the beliefs of both Jew and Christian have rested, is a sheer absurdity. It now tells us that the first man—it says nothing about the first woman—appeared upon this planet at a period still left in doubt, but possibly a million years ago. We know clearly and definitely that that composite of mind and matter called man has within the past four thousand years had such descendants as Plato and Aristotle, Moses, Buddha, and Confucius, Alexander and Napoleon, Galileo and Newton, Shakespeare and Goethe, Faraday and Pasteur, Alfred Russell Wallace and Darwin. But we are now assured that that same composite has been flourishing, in one or other of the geological formations of which the earth's crust is composed, for perhaps a million of years—a period which may be enlarged considerably as geologists penetrate further into the centre of the globe. The successive layers in which successive editions of man lived and hunted, or fished, are being gradually exposed to light. The space of time, between our nearest geological ancestry discovered up to date, and ourselves, is so vast that we feel justified in fearing that geology has overlooked some closer neighbours of our race who inhabited the earth in an intervening period of, shall we say, ten thousand years? One of the interesting questions we can address to the geologist is this—Is there any way of discovering the time which elapsed between the death of the last of the fossilised men in one geological formation and the birth of their nearest relatives contained in the geological formation above him?

The discoveries of modern geologists, in casting gleams of light upon so many hidden depths, in revealing a few bones and flints, and cave dwellings as the result of the working of the human mind spread over a million of years of achievement, seem to me to make the mystery surrounding the man whom we do really know, and his mental powers as we can actually measure them, not less, but more baffling than ever.

The argument derived from fossilised bones of a physical structure resembling our own, by no means conclusively shows that we, body and soul, are indeed the lineal descendants of fossilised ancestors. The power, or chance, that could create or evolve the man of geology could just as easily create or evolve, at a later time, the man of history. Science used to regard spontaneous generation as a means of producing life from not life. Science, thanks to Pasteur, now thinks that even the most insignificant form of life can be produced from life and life only. It is devoutly to be hoped that men of science will make further discoveries, explaining the tremendous difference in mental capacity between prehistoric man and the man we know.

Was the mind of the first man possessed of the powers of thought, feeling, and volition? Is the difference between the achievements of prehistoric man and those of the man we know, one of development only? If man was physically perfect in type ages ago, was he mentally perfect in type too? Could the power that created or the accident that imparted the first life not create or impart a new kind of life? Or a new mind in an existing type of body? Is it a strain upon human reason to suppose that the source, whatever it was, of so many forms and degrees of life and mind could do these things? If none of these things were done, and evolution is the only clue, is not the evolution of men who can measure the distances and time the movements of stars in the remoter heavens as our astronomers do; discover the mysteries of human motive and passion as Shakespeare did; reveal the wonders of the world of living germs as Pasteur did; is not such an evolution a greater tax on human faith than the marvels of a direct creation can be?

Our Prehistoric Ancestors.

When we contrast even the buried exploits of Egyptian and Babylonian civilisation of eight thousand years ago with all that our cave-dwelling and lake-dwelling ancestors could do in a million years, one may be allowed to doubt the theory which makes us, intellectually, an evolution from pre-glacial protoplasm. The missing branches of our geological family tree far exceed in number those that can be traced, to say nothing about the mystery concerning its roots! There are more gaps than links in the chain connecting fossilised with living man. Even the beginnings of civilisations not far removed in point of time from our own cannot be traced. The geologist declares that man was apparently perfect hundreds of thousands of years ago. He may have been. But if he was, the theory of evolution must from that time be regarded as at an end. From that point the history of man can have admitted only of individual variations of bodily or mental strength.

Their Feeble Expansion.

The species of man to which we most clearly belong was several thousand years in travelling over a very small part of the globe. Five hundred years ago the streams of human energy ran in short and shallow channels. Voyages or expeditions that extended over a few hundred miles were considered astonishing feats of enterprise. Were it not for the cravings of ancient kings and emperors for things rare and precious, our slow progress would have been slower still. Even in modern times the quest for gold and silver and diamonds has done more for the exploration and civilisation of remote places than any other cause.

Ocean Navigation.

Perhaps the most striking of all the modern victories of allied science and enterprise has been that over the difficulties and delays of ocean navigation. Seas that used to divide countries and peoples as if they were in separate worlds are now the best means of bringing the nations into closer touch. If land distances were longer, and ocean spaces smaller, our world would be a most inconvenient and expensive place to live in. So far as commerce is concerned land distances isolate. It is water that unites. The freight paid upon goods sent by rail from Southampton to Inverness is twice as much as that charged on goods carried by sea from England to Australia. At a time probably not remote there will be movements of population from the older to the newer lands on a gigantic scale compared with the migrations of the past. Europe has 400 millions of people, or 107 to the square mile. Asia has 900 millions, or 53 to the square mile. Africa has only 170 millions, or 15 to the square mile. North America has only 115 millions, or 14 to the square mile. South America has only 35 millions, or 5 to the square mile. Australia has less than 5 millions, or only 3 to every two square miles. When the four continents are as populous as the two they will have, instead of 325 million people, 1350 millions.

Primeval Instincts.

Long before the earth had been explored the principles of justice and equity were fully known. But at no time did either of these principles prevent people from trying to annex the lands of their neighbours. This primeval instinct is not so apparent now, but it is really just as rampant as ever it was, and on a much larger scale too. Federations and alliances have made conquest less easy, and many lands that were once weakly held are now strongly held, but the fighting instinct, and the annexing instinct, which were the two strongest attributes of the human race in ancient times, are the strongest still. It is perfectly true that the leaders of the nations never talked so much about peace as they now do, but their armies and fleets were never so ready for action. How much of the peace that exists is due to a hatred of war? How much to a fear of getting the worst of it? The fear of defeat, and of that which defeat would entail, are, I think, the best allies the Peace Society could possibly have. Fortunately the profits derived from commercial interchange increase every day, and those to be derived from war are rapidly becoming doubtful. Fortunately, also, we can continue to gratify all our fighting instincts more and more every day by industrial competition and other money-making rivalries. Fleets and armies, if they fight at all, may now come under fire at ranges which make the combatants invisible to the naked eye. That is another aid to the peaceful settlement of disputes. The hand-to-hand battles between Greek and Persian at Plataea or Salamis, between French and British at Albuera, the Nile, Trafalgar, or Waterloo, excited some of the most chivalrous qualities of human nature. It can hardly be said that slaughter by machinery at ranges of eight or ten miles is an attractive pastime.

Darwin's Great Achievements.

Perhaps the most remarkable example ever known of fearless, patient, honest, able investigation in the domain of science was that of Darwin, in tracing the family secrets of living things. He connected, so far as physical structure goes, hidden mysteries of prehistoric man, beast, birds, and fishes with life as it exists now, by a wonderful series of undoubted proofs. The newness, the greatness, of his discoveries upset for a time the mental balance of the scientific and the religious world alike. Some believed that man's origin, and the beginnings of life, were at last revealed, or well within reach. Others feared that Darwin's revelations involved the destruction of all the ancient faiths. Without lessening the fame of Darwin, it is now seen that the light which he focussed upon the origin of species, the results of animal desire, and the survival of the fittest at the expense of the weakest, have only made the origin of the first man, and of the first of every other living thing, more insoluble and more miraculous than ever. Whilst we remember that Darwin has followed ages of transformation without one sign of a special creation, we cannot forget that neither Darwin nor any other investigator has met with one living thing that created its own life, or derived life from "an accidental aggregation of fit atoms." The most important link in Darwin's chain—the first—is still missing. To trace the history of living things, from age to age, may be made easier by revelations such as those of Darwin and Wallace, but as each problem is solved, our curiosity burns with an intenser fire. We want more and more than ever to know the origin of the one characteristic which makes all living things most interesting: I mean the breath of life. Until we know that, we know little at the best. When we know that, all the riddles of human science and philosophy will suddenly become ripe for solution.

II. THE WORLD OF MIND.

In dealing with the universe of matter we have the assistance of our bodily senses. In dealing with the mind we have not always that assistance. Every form of mind, from the highest to the lowest, has at least one attribute in common. Its works are visible but itself is not. It can be seen, never in what it is, only and always in what it does.

In the universe of matter every planet—every particle that floats in the air—has its bodily form, its size can be appraised, its movements can be watched. From the revolutions of its mightiest suns down to the collisions of its smallest particles, it is subject to laws, and is incapable of revolt. The one existence which no eye has ever seen, no microscope enlarged, no instrument touched, no scale weighed, no measure contained, the most important, the most powerful, the most useful, the most interfering, the most controlling, and the most independent of all, is that which goes by the name of mind. Each human mind has attributes of which the material universe is destitute. It can reason, plan, feel, direct, and achieve. It can, and often does, defy all the Heavenly Powers, who may punish, but cannot destroy it.

Although writers on the subject differ widely in their theories of the nature and operations of the human mind, they agree that it inhabits the brain. They also map out its faculties under three divisions ; (1) the power of thought, (2) the power of feeling or emotion, and (3) volition, or the will. The wonderful scope and complexity of these powers are well illustrated by the abstruse speculations of psychological writers.

Is there a Sovereign on the Throne of Mind?

Those who admit the threefold division of reason, emotion, and will, should not, it seems to me, hesitate to conclude that an ego exists, a soul that listens and decides. Reason and its arguments often come in conflict with passion and its appeals. Often the battle rages fiercely, victory inclining one way and then the other. Who or what is that which decides that a man shall walk according to the dictates of reason, or turn aside to the path of folly, and impels him accordingly ? The will is said by some to perform this office. If the will does, then the will is itself the ego of the mind. But is the will anything more than the executive officer of the mind, who stands waiting, ready to set the body in motion, or leave it motionless, in conformity with the decision arrived at. Clearly, unless there is a power of deciding between reason and desire when they are at issue, mental conflicts and indecision might never cease. Whatever within the mind is able to say "I have heard enough, Reason be thou my guide," or "Desire be thou my good," is the judge sitting on the judgment seat having power over all the faculties of the mind. The Freedom of the Will is a phrase consistent with opposite views; because if the will is a servant it is free to do what it is told; if the will is the master, the freedom is his still.

THE SCEPTICISM OF SCIENCE.

The result of studies into the wonders of the material creation, and the history of the evolution of living things, have made many distinguished scientists sceptical about everything they cannot put under the microscope. The discovery of fresh wonders of design does not seem to strengthen their belief in a designer. The suggestion of an individual soul in man is one many do not take kindly to. They show ingenuity the most profound in seeking to account for mental phenomena in some other way. The power of consecutive, rational, logical thought of immense range they must concede to the brain substance. The play of emotions of immense versatility they must concede to the brain substance; also the power of setting all the telephone exchanges of the body at work in carrying out decisions, often of high moment and great complexity, arrived at in the same region. If we hear the bell of an office telephone ringing, we conclude that there is some one on the line. But there are those who will not connect the marvels of the mental telephone exchange with an individual operator, because they have never seen an operator working that exchange. They strive terribly hard to avoid what seems a very plain conclusion, that the millions upon millions of men who walk the streets of the world, going about their own business day by day rationally and intelligently, must have some sort of pilotage at the mental wheels which steer those millions of moving bodily forms so skilfully, each with an intellectual plan of action of some kind in his mind.

THE MIND THE CINDERELLA OF MODERN SCIENCE.

Surgery has mastered many of the mysteries of the physical organs, and can remove with unerring knife many of the ills which man is heir to. Although scientists can measure comets in the distant heavens, and can predict their future movements in remote centuries, they still grope in the dark when trying to fix the personality of the mind.

The homage we offer to the explorer, the navigator, the chemist, the geologist, the biologist, and the astronomer for their devoted labours, and brilliant discoveries in the universe of matter, can hardly be extended to the psychologist or philosopher. Their sphere of thought is the most glorious of all, but their investigations seem to have yielded results the least adequate of all. This is one of the greatest of the misfortunes of mankind, because the knowledge and cultivation of the powers of the mind make for every kind of success in this world. We think only of the sordid necessities of life. If we look higher, a study of the mental faculties rises above the study of lifeless matter, as the splendours of the sky surpass the dust on which we tread.

There are, I know, reasons not a few for this failure, but none that are sufficient to justify it. I do not forget that all the wonderful appliances of modern science are useless in this case. But if the mind itself is hidden from observation, its activities are not. If Sir Isaac Newton's accidental glance at a falling apple could lead him to discover the law of gravitation, philosophy might have revealed more than it has concerning the nature of an existence whose sayings and doings have always been open to the ears and eyes and thoughts of mankind.

One of the worst consequences of this deplorable neglect of the mental essence by most modern inquirers has been the almost universal ignorance of, and indifference to, the really great problems of life. If a mysterious voice in the skies, saying even the simplest things, were heard, all mankind would rush away from its cricket, its football, its golf, and even its money-making, to discuss the phenomenon with intense interest and curiosity. But the phenomenon of mind within our own breasts, which lifts us from the level of the earthworm to the stature of the divine, this, alas! can seldom divert our attention from the myriad trivialities it is made to do to the marvellous thing it is.

THE FOLLY OF NEGLECT.

Such a study would be wise even if the mind as it is must remain as it is. But its powers are capable by rational development of creating greater wealth and grander wonders than ever before. As we develop our mines of gold and silver we leave them poorer than they were. As we develop our mental nature we can, to all eternity, make it richer and richer than before. Every new idea, every new fact, is a seedling of the soul that may give life to new germs of thought, and inspire new exploits, in every sphere, from that of the psychologist down to that of the shoeblack. There are some kinds of contagion which multiply living enemies within a man's body with dreadful rapidity, leading often to death. But the implanting of new facts and ideas from the world without can multiply in the mind within germs of intellectual health and strength even more abundantly.

To make bad worse, the student of psychology finds the authorities extremely difficult to follow. The drift of modern science away from positive methods of belief of which Plato and Aristotle were not ashamed, stated by them with a clearness which no successor I know of has surpassed, suggests revolution backwards other than of evolution onwards.

Many scientists seem to lose the spiritual in the physical, seem to run after the smallest facts of life, and run away from the greatest. This tendency was far from the mind of Plato. His ardent love of his fellow-man did not exhaust itself in the study of comparatively small things. It dwelt upon a study of the mind and its development in virtue and patriotism as the noblest vocation of an intellectual leader of mankind. In this respect I humbly submit the teachings of Plato are as profoundly right now as they were in his own time.

The zeal and number of the men of science are infinitely greater now than ever before. Compared with the discoveries of other epochs, those of science to-day are startling in their suddenness and multitude, in their range and utility. From the surface of things down to remote depths, new appliances are laying so many mysteries bare, enlisting so many unsuspected allies, and uniting in harmonious armies for the service of mankind, so many tremendous forces. The curtains of the furthest heavens are also being withdrawn by our astronomers, and the oscillations of mighty suns, at distances beyond expressions of arithmetic, are being recorded with the clearness and accuracy of a counting-house ledger.

Why should modern science in its triumphal march have left one detachment of scientific thought and investigation hopelessly behind? The phenomena of life and sex in the lower animals—in the ant, the bee, and the wasp, and in the plant world—have been studied with exquisite care and delightfully interesting results. But the phenomena of life, as revealed in the operations of the mental nature of the greatest of all living existences, have found comparatively few students of distinction, and these have accomplished little.

Perhaps some day there will be preferment and distinction in our famous universities for those who devote themselves to the study of mental science at least equal to the academic fame awaiting those who excel in Greek or Anatomy. The sixty professors of Oxford include one for Papyrology and one for Prehistoric Archaeology, but there is no

Chair for Psychology as a distinct subject. The fifty-two professors of Cambridge include a professor for Arabic and another for Sanscrit, but none for Psychology. Those two Universities award many scholarships and prizes, but not one for Psychology. This neglect is general, and extends down to the lower forms of public instruction. I am glad, however, to find that Psychology is included in the training of Scottish teachers.

MENTAL STUDY WITHIN THE REACH OF ALL.

The means for a study of mental phenomena—if not of abstract philosophy—are in the possession of every man who remembers that he possesses a mind, and cares to study it. Even an amateur psychologist might find the occupation intensely interesting. Teachers are coming to perceive that the study of a foreign language can best begin, as every child begins to learn its native tongue, by the direct method; that is to say, by getting to know something of the language before attempting to master the principles of its structure. This direct method of studying the mind is open to all. Materialists look upon mind as a mere procession of mental states without soul or even conscious individuality. If you see a salesman picking out from amongst a multitude of packages on the shelves the one package that contains what he is asked for, you think him a very efficient expert. But that power within the recesses of the human brain, which selects a few ideas from millions of impressions, perhaps on the spur of the moment, and blends these in a certain arrangement of reasoning and language for a designed purpose to be achieved in another mind, which it does achieve in that mind, surely that power is as much entitled as an expert salesman in a shop is, to the credit of possessing individuality?

THE TEACHER'S STOCK-IN-TRADE.

It may seem cruel to suggest as an additional subject in a teacher's training, the study of a new and difficult subject. But teachers have mainly to do with the minds of their pupils, and so much depends upon knowing something of the nature of that with which you have to deal. It is well for the carpenter to know something about the woods with which he has to do. It is well that the farmer should know a good deal about the nature of the soil he cultivates. Would it not be well that teachers of the young should know something more than they do of the nature and properties of the minds they have to cultivate? And if such knowledge is important, as I think it is, in the case of the student teacher in our primary schools, is it not, in a rapidly increasing scale, necessary in the case of those who frame an educational curriculum, and in the case of those who have to pronounce upon the efficiency of teachers and the progress of pupils? Looking still higher, at those venerable cloisters of learning which are the glory of Britain, and those more modern foundations which are rapidly overtaking them, is it not highly expedient that they should place the study of the human mind nearer the beginning of things.

Hands and Brains.

This necessity appeals to me not at all because I wish to divert education from the practical to the metaphysical. More practical teaching is just as urgent a necessity as more psychological. I put these two reforms together, not as enemies, but as friends and allies. Whether in the primary schools or the technical schools, the high schools or the universities, in all countries, preparation for the work of instruction should, I earnestly suggest, involve not only more attentive study of the nature of the minds which are to be taught, but also closer attention to the industrial battle of life which children have too soon to face.

One of the most attractive studies in the world is that of watching the dawn of reason and desire in the mental capacity of a child. It seems the only time in human life when the desire to learn is universally keen. If the inquisitiveness of childhood could survive existing methods of mental training, what a magnificent thing it would be! One of the finest sights in a school is the intense animation of an infant class when teacher and pupil are at work at question time. The outstretched arm, the flashing eye, the grim determination to excel, these make a bodily and mental picture of school life at its best.

Do Systems of Teaching Whet Youthful Desires to Know and Excel?

You pass along to scholars in the higher forms, and the higher you go the more listless the tone of the school seems to become. Is the fault in the pupil or in the system? Does the system keep as cleverly as ever trying to entice the pupil to learn, and does the pupil respond by steadily losing his desire to do so?

I firmly believe that if a study of the mind, and a better training in subjects in which the mind and the hands work in sympathy, were more fashionable in the world's systems of education, the usefulness of education would be greatly enhanced. Unhappily, young minds cannot complain as loudly as young bodies do of injudicious feeding.

OUR ANCESTRY OF IGNORANCE.

For thousands of years the lamp of culture has been kept alight here and there. In one or two great universities, and by the church, the glories of Hebrew, Greek, and Roman literature have been faithfully preserved. But humanity in the mass has been reproduced age after age, strong in body but weak in mind, through a long and unbroken ancestry of ignorance. At last the chief of all the gifts of God, or of chance, if you will, is beginning to enjoy more widely the blessings of education. At last the neglected, unnourished, imprisoned, immortal Sovereign sitting upon the throne of the human mind is beginning to see closer visions of the eternal light, and to hear nearer whisperings of the eternal life, which are his rightful heritage.

Some doubt the wisdom of imparting knowledge freely to the masses. They see signs, they think, that a little knowledge is indeed a very dangerous thing; that it leads to the letting loose of forces, the tendency of which is downwards to chaos, and not upwards to better states of society. That the masses of mankind have but little knowledge as yet may be true, but that misfortune is mainly the fault of others. The minds of newly taught masses, like that of the child, are more than likely, whilst in an infantile stage of culture, to be fonder of their toys than their lessons, and find it easier to pull down than to build up. Centuries of national ignorance cannot be redeemed all at once. But just as the child rapidly becomes the man, so will the national mind, far less rapidly, perhaps, but just as surely, attain the full measure of its strength.

THE SECRET OF SCOTTISH SUCCESS.

We Scotsmen reveal our pride of race, and our consciousness of success, in many ways, to the delight of our own people and the amusement of people born elsewhere. Englishmen and Irishmen, while they cannot deny our success, laugh at the pretension that it is due to superiority of race. No one admires more than I do the valour of our ancestors, their indomitable spirit, or the wonderful success of their descendants all over the world. I believe, however, the secret of that success is best explained by the measures taken by our ancestors, several hundred years ago, to give the Scottish child the rudiments of a sound education. The rising generations of Scotia have been nourished in a mental as well as a physical atmosphere. Fired with admiration of intellectual culture, Scottish fathers and mothers have made heavy sacrifices of their own comfort in order to open up for their bairns broader avenues to higher things.

EXAMPLE.

Example has, perhaps, most to do with the tastes of the rising generation. How can children be expected to take serious views of life, and aim at higher things, if example points the other way? If the minds of grown-up people act as if they could see no better way to relieve the tedium of work and leisure than by frivolous relaxations or sheer idleness, their children will be unlikely to form noble ambitions.

REST AND RECREATION.

No one insists more than I do upon a full measure of rest and recreation. I look on outdoor sports as a vital part of any plan of life. I should be sorry indeed to see Young England, or Scotland or Ireland, growing up without athletic tastes and a zest for social pleasure. But the greatest of all the lessons that youth has to learn—and manhood too—is I think this: to win the most genuine pleasure, you must begin to earn it by active, useful work; and the pleasures that attend triumphs of the mind are the highest and the most lasting of all.

SOCIAL STRATA.

The various strata of which civilised society is composed in most parts of the world, assign to the great mass of mankind a very humble lot. It is to be observed that in the lowest social strata distinctions are just as finely drawn as in the highest. Civilised life, indeed, has got as far away from the primitive family state as it can possibly get. A sense of the family tie that ought to exist between the children of Adam and Eve has become dim even in the churches.

SOCIAL REGENERATION.

The work of social regeneration—the restoration of mankind to a family level—will have better chances when mental culture has become more general. States of serfdom and of vassalage can survive everything but enlightenment. That is also a means of social reconstruction which elevates the masses without lowering the classes. With the spread of culture, the degradation attaching to many forms of honest industry will disappear. It is only ignorance in the upper classes which imagines that honourable handicraft is degrading. It is only ignorance in the humbler classes which feels that it is. With an unfolding of the higher mental faculties all round, the accidents of birth will play a smaller part.

A new order of intellectual merit, open to all, will eclipse the prestige of ancient pedigrees, which so few can justly claim. Far be it from me to disparage the world's esteem for rank, except in one way, that of placing those who have themselves achieved great things higher in public estimation than those whose ancestors did. Nothing exposes the false notions prevailing about culture more than the necessity of explaining that a more general degree of progress towards the higher forms of mental improvement need not lead to a multiplication of book-worms at the expense of the growing requirements of industry and trade.

The Battle of Life.

It is false standards, the result of superficial ideas, that narrow the tastes and occupations of mankind, and limit the range of knowledge in the spheres of active life. The sort of culture I plead for would make all begin in our schools at a common level of hand work as well as brain work. To me the saddest beginning primary schools could make in any part of the world, is that which gives young hands no chance of working in sympathy with young brains. The battle of life for ninety-nine out of every hundred, is a battle in which muscle is as necessary as mind. As long as mind is confined to this planet, and its bodily tenement encloses it, the first task will be that of keeping body and soul together. To do that as things are, ninety-nine out of every hundred must stop short of the high school, to say nothing of the university. They must begin at an early age to earn bread by labour in the fields, the factory, the country or the town. The years of school give a grand chance of guiding young minds along paths of industry to tastes which, in stimulating the higher intellectual powers, may lead to the higher pinnacles of success and useful service to society at large. Most of the benefactors of our race—inventors and philosophers alike—began life with the task of earning their subsistence. Some of the greatest began without any schooling at all. It is in youth that the best tendencies can best begin to shape themselves. I do not ask that popular education should take children off the track they must follow in order to make life's beginnings. But I do think modern education might do more for the young beginner in life. Napoleon taught his soldiers that each might, by excelling, win a field-marshal's baton before he died. If we lift the eyes of the mind to great things we bring great things nearer.

CONCLUSION.

The human body is dust and to dust it will return, not destroyed, but to begin again its usefulness in some way or other in the universe of matter. Just as dust returns to dust, so mind will return to that higher spiritual world to which it really belongs.

Printed by T. and A. CONSTABLE, Printers to His Majesty
at the Edinburgh University Press